

## The Modern Method of Tissue Culture with Some Improvement of Plants for More Enhanced Product

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**Abstract** - The method of grafting method is old but it is an In-vivo process, but tissue culture is advanced but an In-vitro process in which different types of chemicals are used to pure formation of new food supplement but It is not a fast, unreliable, not suitable for all plant as well as it is very costly, but I have a solution for it by using some common organic materials like tomato abstract and banana or guava abstract with some basic chemicals of tissue culture and 7 main titration solvents with the help of light and darkness patterns and UV radiation to get final result with more enhanced plants in short time period with any plants of same species.

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### I. Introduction

Introduction to the tissue culture or grafting is not new but experience was not that good, but now we have 3 solutions which I can describe in my entire paper, as we know 7 main solvents are as follows – Ether, Ether Solvent, Absolute Alcohol, Rectified Spirit, benzene, petroleum ether, Water.

But in the case of tissue culture we generally, need alcohol and there are many organic chemicals for improvement of quality with pure air, white light spectrum, UV radiation, white and dark pattern etc.

### II. Material and Methods

Traditionally, grafting cutting and layering are methods of developing new variety of plants. But after growth of genetic plant breeding and biotechnology tissue culture is started by **Montrose Thomas Burrows**, after that there are so many experiments had done and some development of pure plants

**Study duration**- 1.5-2 months

The use of grafting with tissue culture is something new and unique technique but it is a method which is little bit different, because, we use 7 main solvents for titration and then we use different nutrients antibiotics for make it more pure and free of disease. With the help of 8h light/ 8h dark pattern of white light and UV radiation for ½ hrs regular for 21 days continuously, for get maximized result within short period of time.

Absolute Alcohol, Rectified spirit, Benzene, Ether, Ether Solvent or (petroleum ether), Acetone, Water for 1 day for ½ hrs, and I got explants ready for the experiment.

The organic chemicals are used in tissue culture from a long time period, so I also used that in my experiment the chemicals names are given below

ANTIBIOTICS and Antifungal	AMINO ACIDS	General Chemicals	Organic acids	Organic Supplement	Vitamins	Carbohydrate	Chromogenic Sub.
Amoxicillin	D-Glutamine	Ammonium Sulphate	Alpha-Keto Glutaric acid	Pectin	Vitamin-B12	D-(+)-Galactose	Blue-Gal
Ampicillin	L-Alanine	Boric acid	Citric acid	Apple Powder	Biotin	D-(+)-Glucose	(BCIP)
	L-Arginine	Ferric Sulphate	L-Malic acid	Banana Powder	Vitamin- B9	D- Fructose	
	L-Aspartic acid	Magnesium oxide	Sodium Pyruvate	Casein	Vitamin -C	Sucrose	
	L-Cystine	Molybdenum	Succinic acid	Peptone	Niacin	Dextrose	
	L-Histidine	Potassium Chloride		Potato Powder	Riboflavin		
	L-Leucine	Potassium nitrate		Tomato Powder	Thiamine		
	L-Lysine	Sodium nitrate			PABA		
	L- Methionine	Zinc Sulphate			Vitamin-B6		
	L- Phenylalanine						
	L-Proline						
	L-Tryptophan						
	L-Tyrosine						
	L-Valine						

Disinfectants	Dyes, Indicators and Stains	Enzymes	Gelling Agent	Miscellaneous Chemicals	PGRs	Steroids
Calcium hypochloride	Acetocarmine	Cellulase	Agar	Activated Charcoal	Abscisic acid	Beta- Sitosterol
Hydrogen Peroxide	Apple green colour	Pectinase		Colchine	a-BAP	
Sodium hypochloride	Methylene Blue trihydrate				GA3	
					IAA	
					IBA	
					Kinetin	
					Salicylic acid	
					Zeatin	
					NAA	

By using such chemicals for producing an superior quality of plants without spending a lot of time we also used 8h light/8h dark patterns for them for 21 days till they are dibbed in soil, and using of UV rays for 21 days for half an hour daily helps in making a microbe free product. Using light and dark pattern is helpful in photosynthesis then I dibbed it in soil for 15 days,

### III. Discussion

My expected outcomes were exactly, what I found and my expected outcomes are simply based on principle of genetics plant breeding and biotechnology but not only that I was trying something new, So, I found many different things,

- 1.) Color is changing rapidly, because of pure charcoal, and fruit abstract and tomato abstract,
- 2.) I also have to use 85% of alcohol and 15% of water for cleaning extra amount of each an every chemical
- 3.) I also found exothermic reaction and find foam like substance because of heat releasing chemicals, and I thought about many of them because of there natural character, but not every finding is my expectation.

Because, of these reaction I thought that the experiment may not be get exactly, what I found, but because, procedure is correct I found exactly, what i found I also give them UV effect to it for approx 30-45 minutes, and then for 21 days continuously 16h light and 8h darkness.

I changing the total chemical amount and temperature and humidity many time and also changes the flasks as well for more pure reactions, and I trying them for get more accurate result.

It changes the total problem of food and we get pure products as well, It needs more innovation and more accurate natural conditions for that and than we also have to use that plants which are more suitable plants for more suitable result .

Then again after changing the tubes and flaks the reaction is again in optimal condition. The foam apperance is because of the inorganic elements heat releasing nature. And then finally, we got perfect small plantlet in each tube and flask

### IV. Result

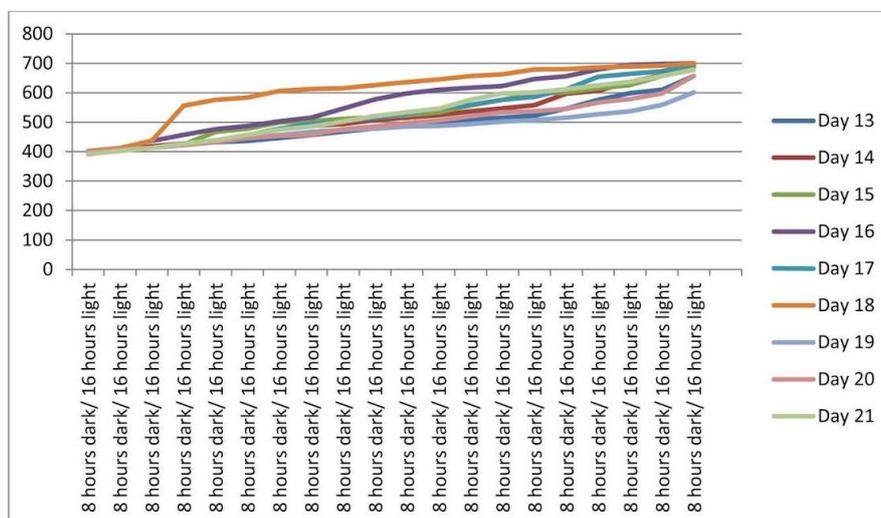
Firstly, in my result I found some highlighted result and conclusions-

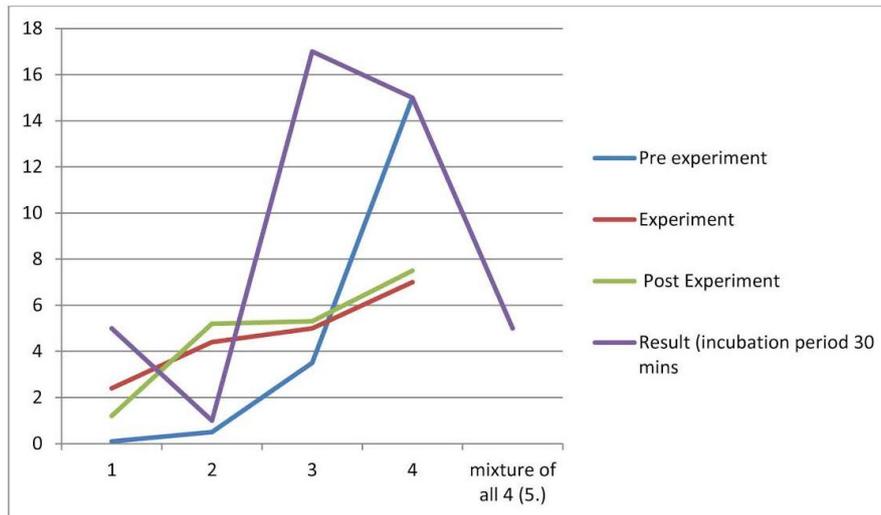
- 1.) The main and final result is that we got a small plantlet from this new experiment
- 2.) I find black foam like appearance and heat releasing. But this is because, of alcohol and charcoal powder.
- 3.) I also found the precipitate in liquid form, which later used as development liquid

I noticed that the pattern of colour changing per tube in every two days because, the food stuffs. Then I got finally, the clear liquid, and because of precipitation. And same black color and foam with heat because of the inorganic chemicals and charcoal.

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S.No.	Day 13	Day 14	Day 15	Day 16	Day 17	Day 18	Day 19	Day 20	Day 21
8 hours dark/ 16 hours light	393	391	392	398	391	402	400	399	392
8 hours dark/ 16 hours light	405	404	402	412	408	412	405	408	402
8 hours dark/ 16 hours light	416	418	413	436	413	437	413	413	413
8 hours dark/ 16 hours light	425	428	425	457	427	556	425	422	427
8 hours dark/ 16 hours light	432	436	467	476	438	576	436	432	439
8 hours dark/ 16 hours light	436	456	478	487	456	584	448	446	457
8 hours dark/ 16 hours light	446	477	499	503	478	606	456	454	475
8 hours dark/ 16 hours light	456	487	504	515	494	613	467	457	485
8 hours dark/ 16 hours light	468	494	511	546	503	615	474	476	502
8 hours dark/ 16 hours light	479	507	517	578	515	626	478	485	521
8 hours dark/ 16 hours light	497	515	524	598	528	636	485	497	534
8 hours dark/ 16 hours light	501	524	534	610	546	645	487	506	546
8 hours dark/ 16 hours light	508	537	557	617	559	657	494	520	576
8 hours dark/ 16 hours light	515	547	576	623	576	663	502	534	598
8 hours dark/ 16 hours light	522	558	598	647	586	679	507	537	601
8 hours dark/ 16 hours light	546	597	601	656	612	680	515	545	612
8 hours dark/ 16 hours light	576	607	615	679	654	686	527	567	625
8 hours dark/ 16 hours light	599	637	626	695	664	689	537	579	637
8 hours dark/ 16 hours light	610	659	657	698	673	692	559	598	657
8 hours dark/ 16 hours light	657	689	687	700	697	700	601	657	678

(All this are calculated by time to wavelenght and frequency ratio)

**Pre- Experiment-**

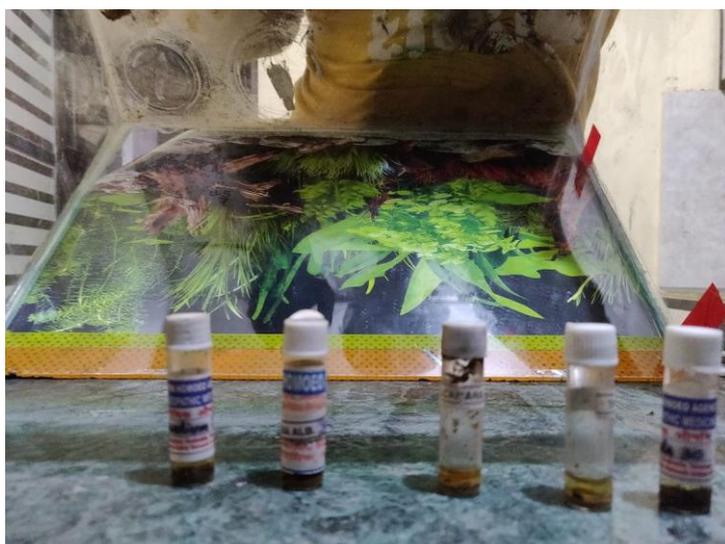




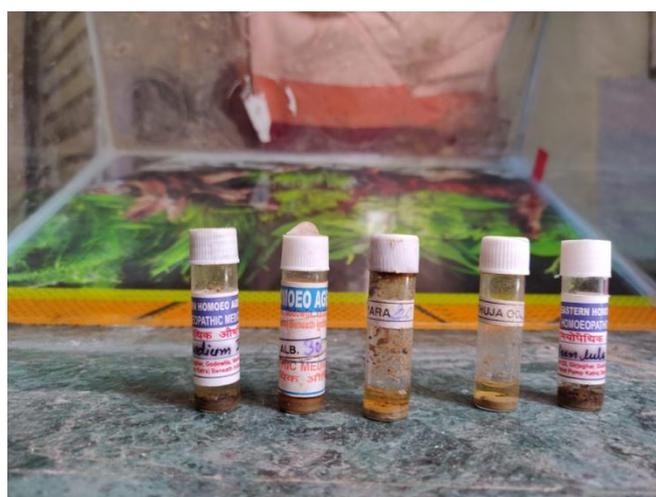
**At time of experiment-**











**Post-Experiment-**











## V. Conclusion

I started this experiment before 5 months of observation and study on tissue culture and how to change demerits of tissue culture into merits of plant production. And after that study I got idea about how to grow tissue cultured plants in a short time period and with different varieties of qualities integrate in it.

My expected outcomes were exactly, what I found and my expected outcomes are simply based on principle of genetics plant breeding and biotechnology but not only that I was trying something new, So, I found many different things,

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## References

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